

REMARKS

Claims 1-20 are pending in the application. In the Office Action at hand, those claims are rejected.

Claims 5, 7, 10, 15, 17 and 20 are rejected Under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 5 and 15 have been amended to recite that the images are focused “to appear to be at optical infinity” to overcome the section 112 rejection. Support for these amendments is found at least on page 8, lines 1-4 of the Specification as originally filed. No new matter is introduced.

With regard to the objected term “generally circular portion” in Claims 7, 10, 17 and 20, the Applicants point out that the Specification provides a standard to one of ordinary skill in the art for the term “generally circular”, and that the rejection of Claims 7, 10, 17 and 20 under Section 112 should be removed. FIGs. 1-3 shows a swivel ring 14 that can have a flat 21. This results in a generally circular portion. The corresponding description can be found on page 5, line 15 through page 6, line 14 of the Specification as originally filed.

Claims 1-20 are rejected under 35 U.S.C. §102(b) as being anticipated by Ichikawa (U.S. 5,266,930). In response to the Section 102(b) rejection, the Applicants respectfully submit that Claims 1-20, as amended, are not anticipated by Ichikawa. Reconsideration is respectfully requested.

Claim 1, as amended, recites a display assembly mounted to a lower headgear portion to be located below at least one of the user’s eyes so as not to obstruct the user’s vision. The display assembly can have a viewing display for displaying information. The information can be visible when at least one of the user’s eyes looks downwardly at the display. The display assembly can be configured to be adjustable by the user while the headgear system is worn by the user for changing orientation of the display.

Claim 1 and 11 are amended to recite “the display assembly having a viewing display for displaying information, the information being visible when said at least one of the user’s eyes looks downwardly at the display”. Support for these amendments is found at least on page 5, lines 2-9, page 7, line 6 through page 8, line 8, and page 10, lines 1-10 of the Specification as originally filed. No new matter is introduced.

Claims 9 and 19 recite a display assembly having a rotatable horizontal axis for allowing the display to be tilted upwardly and downwardly, and a rotatable vertical axis for allowing the display to be tilted side to side.

In the present invention, the viewing display for viewing information and images can be on the display assembly unit. As a result, the information and images do not have to be projected onto a separate wind screen for viewing so that the display assembly can be compact in size.

In addition, the display assembly can be adjustable for changing the orientation of the viewing display to compensate for different sized users. For example, referring to the embodiment depicted in FIGs. 1-5, tilting the display 20 up and down relative to the user's 32 head about the horizontal axis H can adjust for the vertical position of the eyes 34 or 36. Pivoting or tilting the display 20 side to side relative to the user's 32 head about vertical axis V can adjust for the horizontal or lateral position of a particular eye. These adjustments can change the position of the display 20 about two axes of rotation to tilt the display into an orientation suitable for viewing for a particular location of the eye 34 or 36.

The display 20 can be positioned below the users 32 eye, such as the right eye 34 as shown, so that for normal distance vision, the line of sight of the right eye 34 passes over the display 20. Such a position does not significantly obscure the users 32 field of vision of the real world scene. In order to view the information and/or images on the display 20 with the right eye 34, the user 32 merely glances downward. The information and/or images displayed on the display 20 are focused in a manner to achieve or approximate optical infinity so that the user 32 does not need to refocus the eye 34 to view the display 20.

In contrast, Ichikawa discloses in FIG. 1 a helmet 5 having a wind shield 6. A display unit 11 is positioned in the lower portion of the helmet 5 for projecting images onto the wind shield 6 of the helmet 5 for viewing. The display unit 11 is mounted to a unit holding member 15 by a horizontal support shaft 18 (FIGs. 2 and 3), which in turn is mounted to the helmet 5 by a horizontal pin 16 that is oriented 90° relative to the support shaft 18. The horizontal support shaft 18 allows the display unit 11 to tilt forward and backward about a first horizontal axis and the horizontal pin 16 allows the display unit 11 to tilt side to side about a second horizontal axis. The display unit 11 can be locked in place by tightening a curved adjusting disk 20 with respect to an adjusting shaft 19 with a screw 21.

FIG. 32 of Ichikawa depicts a helmet 5 having left AL and right AR display locations on the wind shield 6 for viewing at left EL and right ER visual point positions. A pair of openings 74a and 74b are also found in the nose guard 74 of the helmet 5. FIG. 34 additionally depicts correcting optical systems, 737 and 738, reflecting mirrors 734, 735, and 736, a beam splitter 733 and a lens 732, which are associated with a display element 731. These components do not form first and second bases as claimed in the present invention.

In Ichikawa, the user does not view images by looking at the display unit 11, but instead, the user has to look at the wind shield 6, where the images are projected, and which forms the viewing display. The display unit 11 and wind shield 6 require projection capabilities and the wind shield 6 must be in position for viewing. Since the wind shield 6 is not attached to the display unit 11, the wind shield 6 remains stationary when the display unit 11 is moved, so that the orientation of the viewing display (wind shield 6) does not change and is not adjustable. In addition, although the display unit 11 can be tilted about two horizontal axes, the display unit 11 cannot tilt or rotate about a vertical axis so that there is also no rotation of the disk 20 about a vertical axis.

Accordingly, Claims 1-20, as amended, are not anticipated by Ichikawa since Ichikawa does not teach or suggest a “display assembly having a viewing display for displaying information, the information being visible when said at least one of the user’s eye looks downwardly at the display, the display being configured to be adjustable by the user while the headgear is worn by the user for changing the orientation of the display”, as recited in base Claims 1 and 11, as amended, or “a rotatable vertical axis for allowing the display to be tilted side to side” as recited in Claims 6, 9, 16 and 19. As previously pointed out, the display unit 11 in Ichikawa is rotatable about two horizontal axes but no vertical axes. Furthermore, Ichikawa does not teach or suggest “a rotatable member having a generally circular portion that has a snap fit into the circular recess of the base through the entrance slot, the rotatable member being rotatable within the circular recess about the vertical axis”, as recited in Claims 7, 10 and similarly in Claims 17 and 20. Finally, Ichikawa does not teach or suggest “a second base mounted to the face bar of the helmet for being below a second eye of the user to allow the user to select the position of at least one display by snap fitting an associated rotatable member into

the desired base” as recited in Claim 8 and similarly in Claim 18. Therefore, Claims 1-20, as amended, are in condition for allowance. Reconsideration is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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